

## Three Indo-Burmese Rhododendrons.

BY

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With Plates CXXXIX-CXLI.

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ADDITIONS to the Rhododendron Flora of the Indo-Burmese Empire have been scanty indeed since the days of Hooker and Clarke. The study of the East Himalayan types was pursued with such thoroughness and tenacity by Hooker that no additions have been made in that area to the number of species found and described for the most part by him in the middle of last century. The three species of which descriptions are given below were not all previously unknown—two were very imperfectly known, and the third is new. The most interesting of the three is perhaps *R. Parishii*, C. B. Clarke, of which a brief description was given by Clarke in the Flora of British India, vol. iii, p. 475. Clarke, however, had neither flowers nor fruit. A recent collection, made in 1912 from the same mountain on which Parish collected the original specimens, fortunately contains both flowers and fruit, so that a full description has been made possible. *R. Elliottii*, Watt mss., is from Manipur, and has already been briefly commented upon by Brandis in his Indian Trees, p. 410, where he takes up Watt's manuscript name and gives a short diagnosis in English. *R. Kyawi*, Lace et W. W. Sm., is a distinct new species allied to *R. Elliottii*, Watt mss., and was discovered by a young Burmese forest officer. Its discovery and its close affinity to *R. Elliottii*, Watt mss., have necessitated a full description of the latter species.

**Rhododendron Parishii**, C. B. Clarke, descr. ampl. J. H. Lace.  
Plate CXXXIX.

Species ex affinitate *R. fulgentis*, Hook. f. sed foliis mox glabris floribus multo tenuioribus fructu tomentoso inter alia differt.

[Notes, R.B.G., Edin., No. XXXVIII, Sept. 1914.]

Arbor parva, 6-8 m. alta; rami crassi juniores dense ferrugineo-lanati, mox glabri, vetustiores cinerei decorticantes. Folia apices ramulorum versus aggregata, angustius obovata ad elliptico-obovata, apice breviter obtuse acuminata, basi cuneata ad rotundato-cuneata, usque ad 11.5 cm. longa et 6 cm. lata, coriacea, juventute pagina inferiore simul ac petiolo ramulisque laxius ferrugineo-lanata, mox glabra, costa subtus valde prominente supra impressa, nervis lateralibus utrinque 10-12 subtus prominentibus, pagina inferiore arctius graciliter reticulata, petiolo valido 1.2-2.5 cm. longo supra canaliculato mox glabro suffulta. Inflorescentia corymbiformis, 6-12-flora; pedicelli sub anthesin 1-1.5 cm. longi, fructu maturo ad 2.5 cm. longi, dense glandulosi atque ferrugineo-tomentosi. Calyx parvus, vix 1 mm. longus, undulato-lobatulus, glanduloso-pubescent, in fructu in discum lignosum 5-6 mm. diametro auctus. Corolla sanguinea, campanulata, circiter 3.5 cm. longa et 3 cm. diametro; tubus 2 cm. longus vel ultro, basi 5 mm. latus, usque ad 2 cm. sensim ampliatus extus intusque glaber; lobi 5, rotundati, usque ad 1.5 cm. diametro, glabri. Stamina 10, inclusa, inaequalia, longiora circ. 2.5 cm. longa, filamentis glabris, antheris 2 mm. longis ochraceis. Ovarium tomento brevi nitenti dense tectum; stylus ad 3.5 cm. longus, pilis papillosis glandulosis, superne densius, instructus. Capsula usque ad 2.5 cm. longa et 0.8 cm. diametro, robusta, cylindrica, parum curvata, alte 6-sulcata, tomento ferrugineo denso detersili praedita, stylo saepe persistente; semina numerosa circ. 1.5 mm. longa, fusiformi-oblonga apice basique fibris minimis instructa, brunnea.

Burma:—Moollee (Muleyit), alt. 6000 ft. Parish 1021 in Herb. Kew.; Muleyit Peak in the Dawna Range in the Amherst district, at an elevation of 6200 ft.; 27th January 1912; Lace 5637 in Herb. Kew. et Herb. Edin. et Herb. prop.

*Rhododendron Elliottii*, Watt mss. ex Brandis Indian Trees, p. 410 (*anglice* breviter descriptum), desc. amplif. W. W. Sm. Plate CXL.

Species affinis *Rhododendro Kendrickii*, Nutt.; foliis, gemmis, ovario dense rufo-stellato-tomentello nec strigoso inter alia discrepat.

Arbor parva ramosissima; altitudo non nota; rami crassiusculi glabri, vetustiores cinerei mox decorticantes; gemmae ovoideae 2-3 cm. longae obtusae perulis exterioribus ovatis vel ovato-lanceolatis acumine longissimo vel nonnunquam brevi praeditis, interioribus suborbicularibus utrinque dense sericeis. Folia 7-14 cm. longa, plerumque 8-9 cm., 3-5.5 cm.

lata, petiolo 1.5–2.5 cm. longo valido glabro praedita, elliptico-oblonga, apice acuta indurato-apiculata, basi late cuneata vel subrotundata, coriacea, utrinque glabra, supra viridia nitida, infra pallidiora distincte et minute reticulata; costa media supra impressa subtus multo elevata, nervis utrinsecus 10–12 supra indistinctis. Inflorescentia similis ei *Rhododendri Kendrickii*, Nutt., rhachide crassa paulo elongata, floribus 6–15 subcapitatis inodoris, pedicellis  $\pm$  1 cm. longis dense minute glandulosus. Calyx late cupularis 3–4 mm. longus undulato-lobatus subcoriaceus in fructu persistens puberulus glandulosus. Corolla 5–5.5 cm. longa, ore circ. 4.5 cm. lata, infundibuliformis carnosula nitida saturate roseo-purpurea saturatius maculata (ex collectore); tubus fere 4 cm. longus, basi 1 cm. latus, usque ad 4 cm. sensim ampliatus, extus intusque glaber; lobi 5, circ. 1.5 cm. diametro, suborbiculares, aequales, apice breviter vel vix emarginati, venis tribus parallelis nec divergentibus subulcidis pererrati. Stamina 9–10 inaequalia, longiora fere 4 cm. longa, filamentis compressis glabris, antheris ovoideis 2–3 mm., longis. Ovarium oblongum 6–7 mm. longum dense rufo-stellato-tomentellum stylo stamina longiora paulo superante sparse pilis minutis stellatis praedito, stigmatibus capitato. Fructus oblongus 1.5–2 cm. longus, 5–6 mm. latus, sulcatus rufo-tomentellus, tandem glabrescens, in valvas sex erectas dehiscens; semina delapsa.

Munipur:—On Japoo, Naga Hills, at an elevation of 9000 ft., Watt 6893 in Herb. Kew. et Herb. Watt. Coll. May 1882. *Type*.

Attached to the type-sheet is the following field-note:—“At this elevation this forms a leading plant now in bloom with its large deep rose purple flowers. Leaves green shining, prominently reticulate below. Flower buds round with a few long acuminate bracts like the ear of a rosebud. Flowers in head 10–15, not at all scented. Bracts large rufous hairy obtuse. Pedicels shortly hairy  $\frac{1}{2}$  inch long. Calyx a largish free ring 6-angled. Corolla tubular shining deep rose purple, all petals alike with deeper spots, imbricate rounded with three subtransparent parallel veins not spreading; not at all scented. Stamens with deep brown anthers. Old fruits bursting into six erect valves, brown hairy in last year's specimens. No seeds could be procured. I propose to call this glorious plant in honour of Mr. Elliott.”

Same locality, 9000–10,000 ft. Watt 6210, coll. Jan. 1882 in Herb. Kew. et Herb. Watt.; 8000–9000 ft. Watt 6211, coll. March 1882, *ibid*. “A small tree much branched with bright green shining leaves, pale green much reticulated below. Flower buds ovate green, the outer bracts much acuminate erect.

Fruit long linear bursting into 6 carpels with calyx forming a ring; near *R. Griffithianum*."

Watt 11,463 in Herb. Kew. without note of elevation.

Collected as far back as 1882, this very distinct species has remained undescribed except for a very brief English diagnosis by Brandis in his *Indian Trees*, p. 410. Of the Himalayan species it comes nearest to *R. Kendrickii*, Nutt., and nearer to the cultivated form of that species (*Bot. Mag.* 5129) than to the original Bhutan types. In allocating it among the species with small or indistinct calyx lobes we are in accordance with Brandis; Watt suggests above an affinity with *R. Griffithianum*, Wight; the calyx is of that intermediate magnitude which cannot be described as obsolete, nor on the other hand as dilated. There are abundant differences between *R. Elliottii*, Watt, and its nearest ally, *R. Kendrickii*, Nutt., in the shape, consistence, and reticulation of the leaves, in the shape of the buds, and especially in the ovary.

**Rhododendron Kyawi**, Lace et W. W. Sm. Sp. nov.  
Plate CXLI.

Species ex affinitate *Rhododendri Elliottii*, Watt mss., supra amplius descripti; foliis multo majoribus anguste elliptico-obovatis apice rotundatis nec acutis recedit; floribus rubro-purpureis (in sicco), ovario dense rufo-stellato-tomentello appropinquat; haud procul a *R. Kendrickii*, Nutt., quod foliis lanceolatis acuminatis inter alia differt.

Arbor mediocris ex collectore burmanico *Maung Kyaw*; rami crassi glabri, vetustiores cinerei. Folia 20-25 cm. longa, 6.5-7.5 cm. lata, petiolo 5 cm. longo valido glabro praedita, anguste elliptico-obovata (fere elliptica), apice rotundata indurato-apiculata, basi cuneata, atro-viridia, minute elevato-reticulata, infra pallidiora; costa supra impressa, subtus multo elevata, nervis utrinsecus 16-20 supra vix impressis. Inflorescentia similis eis specierum supra citatarum; in specimine unico rhachis crassa ad 5 cm. elongata, floribus circ. 14 racemose dispositis, bracteis gemmae paucis superstitibus 2-3 cm. longis lineari-lanceolatis dense utrinque cinereo-sericeis, basi inflorescentiae adhaerentibus, pedicellis 2-2.5 cm. longis, plus minusve stipitato-glandulosus. Calyx late cupularis 2-3 mm. longus indistincte undulato-lobatulus firmus persistens albo-puberulus stipitato-glandulosus. Corolla 4.5-5 cm. lata, infundibuliformis, carnosula, rubro-purpurea (ut in sicco videtur); tubus circ. 3 cm. longus, basi 1 cm. latus, ad 3-3.5 cm. sensim ampliatus, extus sparse albo-pilosulus intus sparsius; lobi 5, circ. 1.5 cm. diametro, suborbiculares, apice breviter emarginati. Stamina

9-10 inaequalia, longiora 3.5-4 cm. longa, filamentis compressis infra medium albo-pilosulis, supra glabris, antheris ovoideis 3 mm. longis ochraceis. Ovarium conicum 6-7 mm. longum, dense rufo-stellato-tomentellum, stylo stamina longiora paulo superante sparse pilis minutis stellatis praedito, stigmatibus capitato vix lobato. Fructus deest.

Burma :—Kachin Hills, 1 mile beyond Paypat bungalow, at an elevation of 6000 feet in evergreen forest. The local name in Märu dialect is Pain San. Maung Kyaw 36 in Herb. Kew.

This Burmese species is at first sight very different from *R. Elliottii*, Watt, but on analysis it is found to be very closely allied. The large obtuse leaves and the pilose stamens are the chief marks of distinction. The flowers of these three species, *R. Kendrickii*, Nutt., *R. Elliottii*, Watt, and *R. Kyawi*, Lace et W. W. Sm., occurring in three isolated areas—Bhutan, Naga Hills, and Kachin Hills—are remarkably alike in size, lobing, and colour; the differences in other respects are enough for specific distinction, but the many similarities suggest origin from the same ancestral stock. The new species is named after Maung Kyaw, Burma Forest Service, who has collected valuable specimens of trees, etc., in the neighbourhood of Myitkyina under the superintendence of Mr E. M. Buchanan of the same service.

## LIST OF PLATES

Illustrating J. H. Lace and W. W. Smith's paper on Three Indo-Burmese  
Rhododendrons.

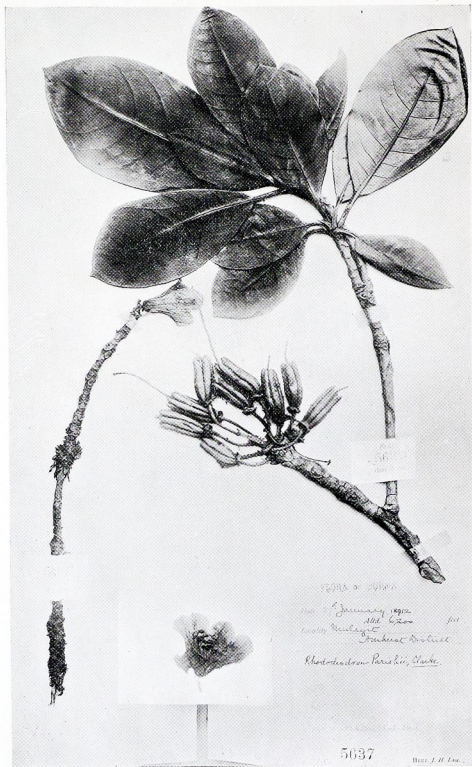
PLATE CXXXIX.—*R. Parishii*, C. B. Clarke. In Herb. Lace.

CXL.—*R. Elliottii*, Watt mss. In Herb. Edin.

CXLI.—*R. Kyawi*, Lace et W. W. Sm., in Herb. Kew. A unique  
sheet, presented by J. H. Lace.

The plates are taken from photographs by Mr. R. M. Adam of dried specimens.





RHODODENDRON PARISHII, CLARKE.

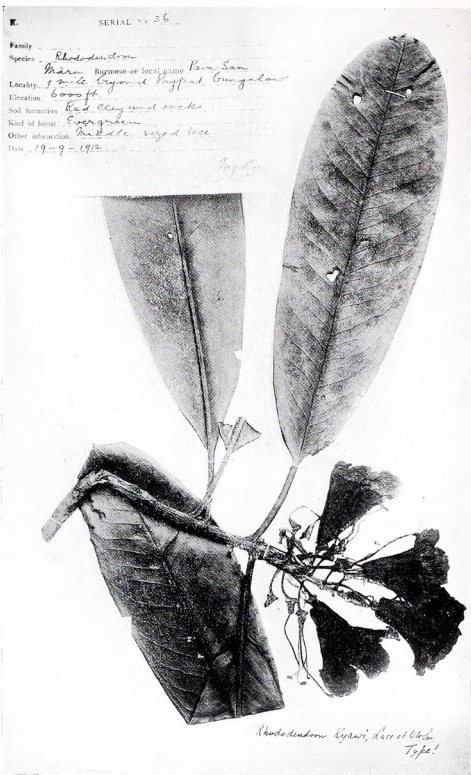






RHODODENDRON ELLIOTTII, WATT.





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